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POSITIVE SELF-STATEMENT VERSUS SECOND-PERSON STATEMENT: SHORT-TERM IMPACT ON PERFORMANCE AND COGNITIVE TESTS

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ABSTRACT

Positive self-statements are widely recognized as an effective method to increase confidence and improve performance, particularly in the academic sector, and though more disputed, the power of praise is also seen as a factor in predicting the outcome of demonstrated ability. However, the impact of self-statement versus encouragement from a second-person source, or a positive second-person statement, is rarely evaluated. This paper analyzes past studies and papers on the topic of self-statement as well as encouragement, particularly in an academic context; the question *"Can confidence and/or performance be influenced by subjective statements?"* is also discussed as a basis for further analysis. A small-scale study comprised of 18 individuals performing cognitive and performance-based tasks after affirmation exercises is also conducted. Primary findings show that short-term positive self-statement as well as second-person statements have great influence over participant confidence and impromptu performance quality but have little ability to influence the outcomes of tests concerning skills acquired in the long term.

KEYWORDS: Self-Statement, Encouragement, Second-Person Statement, Positive Words, Self-Fulfilling Prophecy.

INTRODUCTION

In recent years, scientists have uncovered the groundbreaking impact of words. While it was commonly believed for years prior that "sticks and stones may break my bones, but words will never hurt me", research has found that subjective statements, whether in the first-person or the second person, are able to influence the outcome of one's future.

Self-affirmation or self-statement exercise is a process in which one evaluates personal values through activities such as writing or oral affirmation (Falk et al., 2015). In particular, it is a great subject of interest for researchers in the academic sector. In a study conducted with 7th grade students from 11 schools, it was found that self-affirmation exercises were highly beneficial in closing achievement gaps and increasing the GPA of minority students (Borman & Hanselman, 2016). Written self-affirmation exercises conducted periodically were found to have positive effects on the test scores of those in races with stereotype threats. While self-statement does not directly increase cognitive ability, Borman describes it as "influencing malleable beliefs about identities." This skill is especially useful in protecting against the brunt of stereotype threats (Borman, 2017).

Self-statement is also used to counter negative self-thought and improve self-concept. A study in 2014 found that oral affirmations improved control and cognitive performance in the poor (Hall et al., 2014). Other uses for self-affirmation activities include increasing receptivity to health messages and generating subsequent action (Falk et al., 2015).

Simply put, these case studies demonstrate that self-affirmation increases the positivity of self-image and self-concept, subsequently generating positive behavior and increased confidence in demonstrating abilities. However, it is noted that positive self-statements were at risk of having the opposite effect if the statement did not already reflect the person's self-concept to a certain degree (Wood et al., 2009).

On the other hand, positive second-person statements are affirmations in the second person. Second-person statements and affirmations are most commonly utilized in the classroom, in which positive statements by kindergarten instructors are effectively used to mitigate unwanted classroom behavior as well as alter teachers' negative biases towards students (Downing, 1986). The positive results of such statements do not vary with age; it is found that ninth to twelfth grade students benefit positively from parental encouragement (Conklin & Dailey, 1986). This encouragement during high school years is found to positively impact school attendance in future collegiate years.

Those who were subjected to positive second-person statements are also likely to be part of a phenomenon dubbed *self-fulfilling prophecy*. Often used in the context of a second-person subjective statement, a self-fulfilling prophecy refers to an outcome generated by an assumption. In a study in 2017, it was found that students had a higher chance of attending college if it was already assumed by their family (Goyer et al., 2017).

It is important to differentiate between praise and positive second-person statements. While praise can be identified as a second-person statement, a second-person statement is not limited to praise. In fact, while the umbrella of a positive statement may be very wide, the main differentiation between affirmations and praise is that praise targets a realistic outcome, while a positive statement is a method to generate a realistic outcome. Praise is also non-specific and easily presented in an insincere manner, which generates varying results in the receiver's self-esteem (Emmer, 1988).

Hypothesis: Both positive self-statement and second-person statements will generate outcomes that greatly differ from control outcomes. Second-person statement is likely to be more effective than a self-statement.

From the research above, it can be concluded that both positive self-statement and second-person statements are effective measures against negative outcomes as well as being able to

positively impact test performance quality. However, as positive self-statement may generate negative results in test subjects with opposite beliefs as the positive statement, the positive impact of positive self-statement is likely to decrease compared to that of positive second-person statements.

MATERIALS AND METHODS

For this study, 18 participants within the ages of 10-59, from varying cultural backgrounds and ethnicities, were randomly distributed into three test groups labeled "Self", "Second-Person", and "Test". In each group, participants were asked to fill out a survey consisting of mostly placebo questions as well as stretch, a placebo activity. They were then asked to meditate while the researcher informed them of the activities required of them in the study. After this, the researcher would either ask them to repeat the positive self-statement "I can do it" twice or the participant would receive the positive second-person statement "you can do it" twice. The test group did not receive or repeat any statements. Adequate time was allowed after the statements.

Participants were then asked to read a 162-word monologue in under 20 seconds on the spot. This served as a performance-based task. Afterwards, participants were asked to complete a math puzzle of moderate difficulty consisting of fill-in-the-blank arithmetic equations; however, half of the puzzle was nearly blank. Participants were instructed to complete the puzzle as accurately as possible; the dependent variable in this was the time spent on the puzzle. After 7 minutes, participants were allowed to abandon the math puzzle. The aim of this task was to test cognitive ability in terms of speed in completing the puzzle, as well as record any participants' remarks on the puzzle's difficulty.

In this study, the independent variable is the perspective the statement is from, while the dependent variables are the number of words spoken within 20 seconds, and the time spent on the arithmetic puzzle. Control variables include survey questions, researcher instructions, and the monologue and math puzzle presented to study subjects.

Participant survey and arithmetic puzzle: In the experiment, the paper was folded in half to conceal the puzzle.

Researcher's script and monologue printout: In the experiment, the paper is folded with the monologue side presented to the subject; the number of words spoken is also marked on this paper.

RESULTS

Group	Total Words	Mean Word
Self-statement	453	75.5/162
Second-person statement	738	105.4/162
Test	349	69.8/162

Data obtained from speed reading test.

Group	Total Time	Mean Time
Self-statement	21 min 47 sec	3 min
Second-person statement	36 min 9 secs	5 min 15 secs
Test	25 min 33 secs	5 min 11

Data obtained from an arithmetic puzzle

The number of words read out loud was in the range of 50 to 148. Participants in the self-statement group read an average of 75.5 out of 162 words, while those in the second-person group spoke much faster, scoring an average of 105.4 words. Participants in the control group read the fewest words, with an average of 69.8 words.

All participants in the self-statement group completed the math exercise. The average time spent on the puzzle was 3 minutes. In the second-person statement group, participants spent an average of 5 minutes to complete the puzzle. All participants in the group completed the puzzle. The average time in the test group was also 5 minutes. However, one participant in the test group abandoned the puzzle after spending 5 minutes solving it.
All participants in every group expressed confusion in the math exercise; however, the approach towards this confusion is greatly different. After initial exclamations, participants in the self-statement group tended to continue their work without any further remarks. Participants in the second-person statement group expressed greater confusion, but when presented with the opportunity to give up, all of them continued filling in the puzzle. Control group participants were more likely to express skepticism toward the possibility of completion as well as actively request to end the experiment.

DISCUSSION

It is worth noting that this is a small-scale experiment and requires further experimentation for conclusions to be drawn. However, participants are from varying backgrounds and ethnicities as well as age, making them a plausible representation of much of the population.

We aimed to control the environment in which the experiment was conducted to produce the most consistent results, but certain subjects participated in different environments.

While experiment results clearly differentiated control group results and statement group results in the speed-reading test, the statements did not greatly affect results in the cognitive tests. One reason may be because of the immediateness of the statements. Participants only repeated statements twice and were only allowed about 15 seconds to process the statements. This may play a factor in impromptu tests such as the speed-reading test, but short-term statements did not affect long-term skill tests such as the math puzzle.

CONCLUSION

This study illuminates the nuanced impact of positive self-statements and second-person statements on cognitive performance and academic tasks. While both methods have been celebrated for their confidence-boosting attributes, our findings suggest that neither significantly outperforms the other in the short term. The small-scale nature of the study calls for further, more extensive research to corroborate these preliminary

results. However, it's crucial to recognize that the type of encouragement—be it self-generated or external—may not be as influential as previously thought, at least in immediate settings. This challenges existing notions and calls for a more comprehensive approach to understanding the psychology of encouragement and performance.

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